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ABSTRACT

A review of the problems encountered in an attempt to implement behavior science training in two programs in family medicine is presented. An outline of an intervention model that focuses on strategies, activities, and implementation problems in training the behavioral sciences for family practice residents is provided, including discussions on assessing training needs, developing training methods, making training tasks relevant to the work of the residents, and designing evaluation procedures to assess the impact of training. (Author)

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Implementing Behavioral Science Training In Family Medicine[1]

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Problems in implementing behavioral science training in Family Medicine are like the problems in implementing behavioral science training in any area where psychology, or more broadly the behavioral sciences, interface with other disciplines embroiled in their traditions and territories. Occasionally it is hard to effectively collaborate because of the multiple sources of competition and different points of view that pervade professional work situations. Family Medicine offers much promise for an effective, meaningful and successful collaboration. But to deny that problems exist would sketch an unreal picture. My intention in this presentation is to draw out some thoughts and experiences that I have had with behavior science training and indicate where psychologists can use some of their savvy in this collaborative effort. The basis for this discussion will be my experiences in working with two different residency programs with different structures and different personnel. I am going to summarize some of my attempts to develop a meaningful behavior science program for training residents and use this experience to examine points of difficulty.

There are three broad areas of potential collaboration between Psychology and Family Medicine: Treatment, Education and Research. In each of these there are problems in boundaries and role definition that have yet to be clearly resolved.

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Perhaps diagnosis and treatment are areas where psychologists can work with family physicians most effectively, yet it is also an area with a great deal of potential for conflict. I find myself in conflict about how much training to develop in the way of treatment interventions, knowing that psychologists have more extensive training and skills in most forms of treatment, and aware of limitations imposed by time demands on the physician's practice.

In education and educational design psychologists can work with family medicine programs and faculty to enhance their ability to deliver quality education to the residents. Helping faculty develop their teaching skills has been a large part of my work and a source of satisfaction. Continuing education for faculty and other physicians is also a relevant area of education.

In research, there are multiple needs. Family physicians are not formally trained in research, yet the area of primary care affords many opportunities for developing research on substantial problem areas such as diabetes or hypertension or family health, as well as in evaluation research.

In the discussion that follows I will outline broadly a systematic approach to the problem of implementing training into residency programs. The focus is primarily on approaches to training rather than on the content of training. I will suggest some strategies that might be of some help to the increasing numbers of psychologists working in this area and outline some of the major problems that I have encountered.

Intervention can be divided into four broad phases: (a) the assessment of needs for training (b) determining methods of training that are available and workable (c) developing training models that are relevant to needs and that incorporate workable methods and (d) evaluating the effectiveness of the educational effort.

For each of these areas the discussion will focus on (a) strategies (b) activities and (c) problems of intervention. These considerations lend themselves to an organizational framework outlined in Table 1. This table represents an intervention matrix and each cell entry reflects considerations for the design of a total intervention in behavioral science training. The

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Insert Table 1 about here

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remainder of this presentation will outline further the items reflected in those cells and discuss some of the difficulties to be expected in implementing such a scheme.

Assessing Training Needs

The content and objectives of behavioral science training have been outlined in several articles in the existing literature (Smarr and Berkow, 1977, Johnson, et. al. 1977). These provide a basis for identifying content. The degree and amount of training needed for family physicians working within a specific setting will depend on a number of factors and include the problems presented by the patient, the resources available to the patient, the previous training, experience and perceived needs of the residents and the level of sophistication of the faculty in the areas of behavioral sciences.

At the outset it is important to have a good sample of the types of patient-problems that are presented regularly as well as the resources and background from which the patient population is drawn. In Connecticut I work in two different offices; one located in the city of Hartford and the other located in a relatively rural suburb in Farmington. The program I worked at in Buffalo was in the inner city. The patient needs in these three

areas are considerably different in part because of the cultural background that the patient present and in part because of the social milieu within which they find themselves. Training in problem assessment and treatment for the middle class and upper middle class residents in the Farmington area who have resources and who take advantage of more traditional models of therapeutic intervention, is considerably different from training for problem assessment and treatment of inner city residents. These latter programs are more effectively tied to public service agencies rather than private resources and the resident becomes an advocate for the patient to receive high quality service.

In assessing resident needs for training I have found that residents are aware of their limitations and if encouraged to seek help, and if help is available as they need it, they will freely use psychological consultation on their cases. This provides a basis for determining training needs that is case-specific. It also affords a means of establishing credibility with the residents as a trainer in other situations. Observing residents is also instructive as to their needs in interpersonal skill development.

There are some needs for training that require more indepth questioning of residents. Specifically, the theory base from which residents practice the behavioral aspects of medicine is frequently very limited and far from pragmatic. This is in some contrast with their intensive learning in the background and theory of biochemistry, for example. This limits the language used in case consultation and requires the development of more extensive training during the course of the residency.

It is also important to assess needs for training by the faculty in behavioral diagnostic and treatment skills. Psychological diagnostic and treatment approaches to many disorders have changed rapidly within the past few years and a great number of those working in family medicine have

lost touch with their two or three months of psychiatric rotation in medical school. These changes put a considerably different implication on interventions with patients. It is important that psychologists in these settings develop a broad resource base for training residents by building a well trained faculty.

There are problems in assessing the training needs of faculty. The medical model of specialty training from which many faculty have evolved, focuses on developing experts in an area of specialization. Unfortunately there are some occasional faculty who assume the expert role. This restricts the learning nature of the interaction. Younger faculty seem to be more aware of their limitations making it easier to work with them in collaborative training activities.

The methods of assessment of training needs that I have tried have been varied. Paper and pencil surveys identifying problem areas and have been relatively successful allowing us to design a rotation based on individual needs. Following residents with the patients has also allowed the identification of training needs. These frequently are individualized in that consistent patterns in the residents' behavior show up through their patient interactions (Krull and Tapp, 1977). Discussions with residents in such case presentations will reveal the needs of that individual. Since residency training in family medicine tends to be individualized there is a great deal of demand to be sensitive to differences among residents while having a global understanding of the needs of the total program

There have been no formal assessments of training needs based on an analysis of patient needs. Krull et al (1978) has reported that patients do see their family physicians as being able to provide help with emotional problems to a greater extent than patients in a hospital clinic. Studies

like this should help incorporate these findings into the design of training activities. It is an area to be explored further.

The implementation of training needs assessment procedures is necessarily time consuming. It involves hours of interviews with residents, faculty and patients. My attempts to systematically and more efficiently collect data on training needs have been less than satisfactory. Those residents who are interested in pursuing behavioral science training will return the questionnaires completed and are anxious to discuss their needs for training. Questionnaire data is relatively helpful in programming for those individuals who are seeking training. It has not been helpful for those individuals who have not made investment in this area.

There are also problems that arise from attempts to protect the residents from observation. The sanctity of the interaction, the standards for physician performance, the threat of intervention and halo effects for some residents impede the assessment of needs for training.

Training Methods

In the programsin which I have worked implementation of training at a generic level is a problem. Conferences, lectures, and group discussions are not universally attended by all residents although frequently these means provide a mechanism for training faculty. The major problems of implementation are derived from the fact that teaching in residency programs aremostly a one-on-one activity. The focus of the residents is on their cases and anyinterest in theory has to be generated from concerns for the correct care of the patient. This defines some of the limitations on the use of standard teaching methods like lectures and requires an adaptation of teaching style to the specific case. The activities listed in row two and column two of table 1 suggest some of the teaching activities that work.

Training has to be constantly focused to promote self learning by the resident. There is a perceived need to be "spoonfed" that perhaps arises from the nature of some of the earlier experiences in medical education. The focus of training has to emphasize the residents' ability to solve problems in those areas of behavior science based on the current knowledge that is available. Reprint files and resident-centered consultation are aids to this strategy.

The problems in implementation become problems in manpower and time. One of the best methods of implementing, particularly in a program where involvement of a psychologist is relatively new, is what I call the "hang out" method. There is usually a place where the residents drink coffee or write notes or discuss cases with each other or other faculty. Being available in this area and asking questions about psychological and social problems that are relevant to the case is one of the ways that implementation occurs. This has been a relatively successful method of teaching and is usually perceived by the residents and faculty alike as an opportunity for learning on their part. Reversing the learning roles is also a helpful method for assisting the residents in gaining some educational skills. Asking simple questions which focus on physiological explanations of disease helps residents formulate the explanation in lay terms. Reversing roles and having the resident "be the patient" also clarifies the patient perspective for the resident. These methods respond to the needs of the resident at the moment and avoid time problems.

The additional problems arise in training in "boredom by contrast." The medically complicated patient - or the medical emergency - is exciting. The behavioral problems are not - at least from the resident perspective. It takes longer to assess and treat, the outcome is less clear and the rewards for success are not as great. The implication of these difficulties can be; "why bother, it won't change anything anyway". This attitudinal

perspective is defeating, and if it is reinforced by a lack of faculty or program support, the task of training becomes difficult, if not impossible.

Task Relevant Training

Family Medicine has taken a rather unique stance in its development by focusing on the use of educational objectives as a method for identifying training content areas. Training objectives have been encouraged by the Society of Teachers of Family Medicine and supports are available to assist in writing and developing those objectives. These afford the development of teaching models that are designed to aid in the implementation of these objectives.

The use of learning objectives provided the entreefor intervention into many different facets of the educational experience. The availability of objectives allowed us to discuss the particulars of the training activity that the residents would receive within a particular service rotation. They provide a means of faculty orientation which alters the standard apprenticeship model to include more didactic input relevant to the objectives. In addition systematic development and use of learning objectives can be the basis for organizing a total training program. The use of learning objectives for organizing training enforces learning within the context of a service delivery activity, particularly when these objectives become the basis for evaluation.

When the residency program is viewed as a service program with service as well as education as its objectives, there are requirements for different activities to insure the quality of care. The training experience has to incorporate more active direction of the residents to utilize the case material for learning about the behavioral science aspects of medicine. The structure of the program must incorporate supervision and case review as

methods of teaching all aspects of behavioral science. Collaboration and effective case management became the means to the attainment of the stated learning objectives. This requires that the faculty be trained in the behavioral aspects of cases.

The problems that I have encountered in making training work under these conditions have largely been the result of inoperative structures and untrained teachers who were unsure of their responsibilities and their skills in supervision. There was also a very large gap in the orientation of the faculty to follow and supervise cases through the residents. Overall this led to the lack of effective supervision in the continuity of care. This particularly affects case-related training in the behavioral science aspects of practice.

Evaluation

Evaluation should be an important part of training in two general areas: a) It should provide guidance so the residents can identify specific skills that are needed and they can formulate their own training activities. b) It should provide some corrective feedback to the residents so that they can change their behaviors based on the information they receive.

In the Buffalo program a great deal of the training was organized around the evaluation scheme. The residents were given the list of training objectives when they entered the program. This was for all services including behavioral sciences. They were encouraged to use these learning objectives as ways of identifying their own training needs. This was relatively successful particularly when there was discussion with faculty, preceptors, and other trainers. Tying evaluation to the assessment of training needs gave the program overall cohesiveness. To the extent that this was implemented

within the organization as a whole, it proved to be a relatively successful method for aiding in training while keeping the responsibility for learning in the hands of the resident.

The development of evaluation procedures also aids training in other ways. In the program of Connecticut there is a great emphasis on testing both before and after training activities. This has some distinct advantages in that it focuses the residents on the acquisition of information through conferences and readings. In a study which we just completed (Pinkerton, et. al., 1978), however, we examined the effects of using a video training tape on the implementation of the content of the training. Residents were given training on the use of fluoride as a preventative treatment for children's teeth. The instructions included returning to the patient charts and calling the patient to change their fluoride treatment regimens as per this new information. Pre and post knowledge tests showed that all the residents learned the information very well but pre and post chart audits indicated that there was no demonstrable change in the residents' behaviors as a result of this new knowledge. Such an evaluation program allowed a more detailed assessment of the weaknesses associated with the implementation of new information.

Evaluation procedures have not tended to focus on examination of the methods of training activities as a part of their content. We are currently in the process of developing an evaluation kit for training in the behavioral sciences. Hopefully a standardized method will allow us to assess differences between programs and thereby assess potential differneces in methods of activities that are associated with training.

The implementation of the evaluation procedures as a part of training depends to a very large extent on the nature of the administrative supports and emphasis. Our focus on knowledge testing in the Connecticut program was largely due to the directors insistence that these forms of evaluation

be conducted. It has notbecome integrated into parts of the program design to identify content training needs. In the Buffalo program there was a similar press to use evaluations via learning objectives as a method of determining whether or not training was being implemented in the program. We also receive written reports from services about the residents to identify their assets and liabilities relevant to the learning objectives as stated. This was moderately successful in those instances where the preceptor and tutorial staff understood the meaning of learning objectives. In those areas where learning objectives were represented in foreign language, such evaluation was not particulary relevant to the teaching.

When evaluation focuses on and includes assessments of skills in the behavioral sciences, it helps substantially in making this a part of the total training activity. Observational methods through one way mirrors or via video tape enhance this aspect of behavioral science training considerably. When regular chart audits review for notes on emotional content, social supports of the patient, and behavioral treatment goals, they integrate behavioral science training into the activities of the training program.

Most importantly, however, there must be understanding at the level of the medical faculty that the behavioral aspects of the practice are of equal importance to the management of patients. There must be faculty compliance to training in these areas.

I have attempted to present in some detail, problems that I have encountered in implementing behavior science training within two family medicine residencies. As a result of this experience I want to identify some areas of need where psychologists can use their skills in aiding in the development of training family physicians.

1. There is a need to develop new modes of thinking that focus on multiple systems that are both antecedents and consequences of the disease processes.
2. There is a need to develop more comprehensive and collaborative models of practice which specify levels of competence in treatment based on performance.
3. There is a need for functional clarity in role definitions: Teachers vs. Therapists vs. Supervisors vs. Evaluators vs. Collaborators vs. Consultants.
4. There is the need for a commitment to developing and applying knowledge in the behavioral sciences to the wholistic care of patients.

The involvement of psychologists with family physicians in the areas of research, education, and treatment affords many viable points of collaboration. Our expertise offers a great deal to supplement the skills of the family physician in these areas and in my opinion they will be of considerable value to the evolution and development of family medicine as a discipline. The demand placed on behavioral scientists working in these areas is quite large. There is a demand for a breadthof knowledge that tends to get side-tracked in graduate education of psychologists. Our training in process is probably the strongest asset that we bring to this collaborative endeavor. My association with family medicine continues to be a growing experience at a personal level. I'm repeatedly challenged in terms of my own abilities to teach, treat, and collaborate.

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Table 1

Intervention Matrix

	Assessing Training Needs	Training Methods	Task Relevant Training	Evaluation Procedures
Strategies:	Patients Residents Faculty	1. Theoretical and generic to problem and case specific 2. Promote self-learning	Learning Objectives 1. Faculty orientation 2. Program organization	1. Guidance for residents 2. Corrective feedback
Activity:	Interview Questionnaire Patient Satisfaction Faculty Perceptions Evaluation Reviews Interactional Studies a. Simulation b. Dr.-Pt. Interaction Following Pre-testing	Case Reviews Rounding Video feedback Simulation Reprints "Hanging-out" Modeling Role reversal Video lecture Conferences	Direction Supervision Review Case collaboration Case Management Faculty training	Review Ratings a. self b. others Tests Observation Simulations Chart audits Combinations
Implementation Problems:	Reliability of Report Return rate Violation of Dr.-Pt. Relationship Variability of Professional ethics and standards Over empathizing Halo effects	Accessibility of residents Time availability Boredom by contrast Supports	Organizational structure Supervision responsibility Supervision skills Case retrieval and followup	Faculty understanding "Paper work" Compliance Role unclarity Time and money

FOOTNOTES

1. This paper was presented at the American Psychological Association Meetings, Toronto, 1978. Reprints are available from Jack T. Tapp, Department of Family Medicine, University of Connecticut Health Center, Farmington, CT 06032.